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## Alcimededes

Over the last three decades of the 20th century, trauma surgeons in Northern Ireland have gained considerable experience in treating wounds caused by rubber bullets after British forces started to use these weapons in the 1970s as a means of providing high stopping power without inducing severe injury. In Continental Europe surgeons continue to gain such experience because the sale of mass-appeal, less powerful versions of professional rubber-bullet guns is poorly regulated in the European Union leading to their fairly widespread use – either by people in self-defence or by perpetrators of crime. A retrospective study conducted in the maxillofacial surgery departments of two French university hospitals identified six individuals who had sustained facial trauma following the uses of such weapons between the years 2000 and 2008. In five cases the ‘self-defence’ guns had been used as an attack weapon and in only one had the weapon been used in a strictly self-defensive situation (*Injury* 2010;41:73–76). All six victims sustained permanent and extremely severe facial injuries, necessitating long-term hospitalisation and two- to three-step surgical treatments. The authors conclude that, given the poor ballistic reliability of the guns, and the numerous circumstances where they can be misused, the clear rules about safe use of these weapons, such as ‘safety distances’ and aiming only at the lower extremities, appear irrelevant as far as the face is concerned.

A study of adult bicycle accident victims presenting to an American regional trauma centre over a 1-year period identified 200 such patients aged 18 years or older. Data were collected at the bedside regarding helmet use, alcohol use, experience level, location and type of accident and prevailing vehicle speed (for road accidents), and presence and degree of head or brain injury. Alcohol use showed a strong correlation with head injury (odds ratio, 3.23). In addition, alcohol impaired riders were less experienced, less likely to have medical insurance, rarely wore helmets and were more likely to ride at night (*Am J Emerg Med* 2010;28:68–72). The authors of the study conclude that alcohol use leads to a host of unsafe bicycling practices and suggest that the interrelated char-

acteristics of the riding patterns of the cyclists who use alcohol might help target interventions.

Finger prints are one of the oldest and commonest forms of evidence found at crime scenes. A study from Slovenia looked at techniques to detect and ‘lift’ finger prints from live human skin (*Science & Justice* 2009;49:292–295). Five different techniques were used to lift finger prints from the skin, with best results being obtained with silicone and white fingerprint gelatin. Although the usefulness of this technique lessens with time, usable finger marks were still detectable up to 4-h after deposition.

A review of toxicology results from drug-driving cases in Scotland over a 12 year period (1996–2008) set out to identify the most frequently encountered drugs and to determine if there were any major trends in the drugs misused (*Science & Justice* 2009;49:237–241). A number of major trends were identified: cannabinoids were consistently present in 40–50% of cases; benzodiazepines more than doubled in frequency to over 80%; there has been a significant increase in cases positive for morphine and methadone – up from less than 2% each to 31% and 23% respectively; and the frequency of positive cases for cocaine, amphetamine and methylamphetamine remained unchanged (approximately 22%, 6% and 5% respectively). A significant finding was the huge increase in polydrug use. The number of cases testing positive for four or more drug groups has increased from 4% in 1996–2000 to 25% in 2008 and the number of cases testing positive for one drug only has dropped from 72% to 17% over the same time period. Alcimededes was particularly interested to note that after field impairment testing (FIT) by police officers was introduced in Scotland in the early 2000s, there was an initial increase in the number of cases submitted for analysis. However, the number of FIT tests being carried out has since dropped and arrests have tailed off. Apparently, discussions with the police have revealed that many police officers lack the confidence to carry out the tests and a lack of regular training may be partly to blame.